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**Perception and Judgement of
Life Quality across Projected Societies**

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Abstract

Overview and perspectivation of one's survival conditions implies a departure from specialised models. Therefore, the present paper is intended to give an account of the perception and interaction with differently founded societies. The reported experiments cover a period of about 15 years and are stressing the contributions that apparent disparate systems can make to the co-operation of the individual's experience with various physical and social surroundings and the cognitive integration an individual can achieve. At the beginning, the experiments were designed with explicit reference to James J. Gibson's theory of ecological perception. Later on, the aims have been extended with the purpose of approaching interactive information processing within the framework of the theories of discontinuity. As will be outlined by Ole Elstrup Rasmussen, University of Copenhagen, this extension has been successful which allows the statement that the Gibsonian concepts of "shallow" and "deep" have been projected into the instructional materials used in our studies. By means of a fairly extensive statistical program all studies have been put together in order to achieve a longitudinal evaluation of the preferences shown by a broad spectrum of participants. Based on the two established factors, their factor-scores were used in the set-up of two test-vectors, for input in a number of discrimination analyses. This measure allowed a location of the environments in the measurement space in terms of centroids that were discriminated efficiently in all studies carried out thus far. The test-vectors correlate mainly with the first discrimination function. This function accounts in all cases for between 60% and 80% of the variance in the scales. More results of this program will be made public at the conference in Singapore.

Europe is still determined by numerous interlocking mechanisms that are reflecting its advancement of bureaucracy despite all efforts of economic and cultural integration. As a consequence, it is missing the benefits of viewing growth and adaptation to society as a set of essentially flexible strategies of interactive information pick-up. However, there are many examples of notable variations in economic growth and justice in the distribution of goods and services.

The focus of the presentation is on the individual's comprehension of "citizenship". The study and analysis of citizenship concerns a person's co-operative interaction with various physical and social surroundings as well as the cognitive integration of these surroundings. A person can achieve this integration through the development of his abilities of judgement. Thus the aim is to make apparent the kinds of judgement that have been manifested on the basis of three different sequences of episodes modelling modern life and citizenship. Whether and to what extent these sequences are co-varying with the basic paradigms underlying the development of strategies of perception and action has been studied in agreement with the design matrix of Table 1.

Table 1.*Design Matrix*

	Model		
Paradigm	Behaviour	Humanist	Growth
Affinity	A/B		
Structure		S/H	
Process			P/G

The models of Table 1 refer to “Projections for the Future”, which is an audio-visual slide series that has been produced commercially by the Biological Science Curriculum Study of Boulder, CO in co-operation with Crystal Productions of Seattle, CA (Lee & Mayer, 1976). This company has produced differently coloured slide series of individual-environment interactions that were built on extrapolated trends and tendencies in the USA of the 1970s. From a scientific point of view, these projections have been studied primarily in the Swedish context. The general orientation is toward the overview and perspectivation of one’s survival conditions, which implies a concentration on the basic idea behind the teaching of psychological theories in general and behavioural theories in particular. That an interpretation of human actions cannot take place independent of a model or theory is the basic idea. In the present context, it is assumed that many different theories exist in behavioural science but that they are all based on the paradigms of affinity, structure and process.

Any transition in Table 1 from one frame to the next is controlled by the trace of the design matrix. Its letter-combinations have been resolved according to the descriptions:

1. A/B-co-variation

Accordingly, it is the paradigm of affinity that controls behaviour modification. For example, an event is initially shown, which concentrates on a young man who is rescued from under-nourishment and who is suffering amnesia. Successively, events transform the illuminated episode into a narrative of a civilisation that is developing the functions typical of Skinner’s Walden Two.

2. S/H-co-variation

The other example concerns a series of pictures, which are generating the functions of society that is developing in agreement with the principles of structure. Consequently, the second cell of the trace fixes its design firmly in humanistic and ecological values. The manifestation of the model concentrates on a young man who gets to know himself and his environment with the help of people who are educating him with an eye on the highest values concerning nature and human dignity. Despite access to a sophisticated technology, ecological practices are stressed and the fundamental import of the experience of interdependency are incorporated into the events of the pictures.

3. P/G-co-variation

The third example concerns the illustration of the idea of processing, as engineers understand the concept. Consequently, the governing mechanisms and the control of continuous growth are in focus. In this series, both population and technology is growing. By illuminating the slides a young man becomes visible who is on his way to a city. However, during his journey some of the control mechanisms get out of

order. Moreover, the effects of continuous growth are illustrated by a concentration on the changes that are associated with an understanding of the concept of re-creation.

A sequence of episodes is a precondition for an analysis of perspectivation and judgement. Any judgement is accessible only to the degree that it can be reflected in a preference statement. What is accessible both for the person himself and for others is basically dependent on the set of propositional statements constituting the domain of judgement or scope of one's perspective. That a viewer can find his standpoint and chain his viewpoints rests on a framework that has been resolved into the following components:

1. Frozen acts, taken from a movie version of "Projections for the Future" have been sequenced.
2. All of the extracted acts have been framed. Each frame contains a discrete act. Through the framing each act is fixed within its series.
3. Processing of frame by frame allows for a control of judgement. This means that a certain concept is encapsulated by a fixed number of pictures.

Thus, illuminating the pictures of a series one after one, makes its theoretical underpinnings apparent. Highlighted information, therefore, can be picked up only in proportion to the ecological significance of the event contained in the illuminated picture. However, an episodic pointing cannot easily be adjusted, because the specifications are prescribed and controlled by a pre-designed stage manager. This manager consists of an audit transition signal that can be turned on an off in monitoring the time course of the particular series. During the time course, the viewer is expected to interact co-operatively within the framework of the given society.

Method

The reported experiments cover a period of about 15 years and stress the fact that participation of apparent dissimilar groups has made possible true experimentation as well as the validation of the approach (B. Bierschenk, 1997a). Therefore, the participant in the experiments is expected to demonstrate his ability to understand what is right or wrong in any given society. It follows that the given test instruction is orienting judgement toward an assessment of one's possibility to live and work in a given society. In the conducted experiments, the participant has been required to represent himself by adopting the role of one or the other character of a scenario. This kind of self-extension is intimated through the design of Table 2.

Table 2.

Latin Square for Four Programmes and Four Classifications

	Presentation			
Classification	1	2	3	4
(1) Natural Science	Humanist	Sweden	Growth	Behaviour
(2) Social Science	Growth	Behaviour	Humanist	Sweden
(3) Economics	Behaviour	Growth	Sweden	Humanist
(4) Art & Letters	Sweden	Humanist	Behaviour	Growth

As shown in Table 2, every treatment appears once in a row and once in a column. In carrying out this design, it will be necessary to arrange for several session meetings. Each requires about 15 minutes of participation. Three to four observations per cell would be sufficient in the definition of the sources of variation. However, if available, higher numbers are preferable. The age of the participants has been between 17 and 60 years. In terms of their centroids, the models were discriminated efficiently in all studies carried out thus far.

The aim with these studies has been to develop a unified theory of planning and the achievement of perspective control over one's environment and existence in that environment. At present, a theory that can guide the individual's development toward "citizenship" is lacking. However, it has become apparent that the development of such a theory is possible. The theoretical approach taken is indicative of a capacity of explaining in what way people comprehend and overview their survival conditions. Based on the results presented in B. Bierschenk (1987) and Bierschenk, Helmersson and Lohmander (1987), it is argued that attention should be paid to the following hypothesis:

Two invariant scales are sufficient in the assessment of Life Quality. One of the scales concerns the "Visibility of Social Texture" of a society. The other refers to the possibility of developing an "Eigenvalue" in the society of concern.

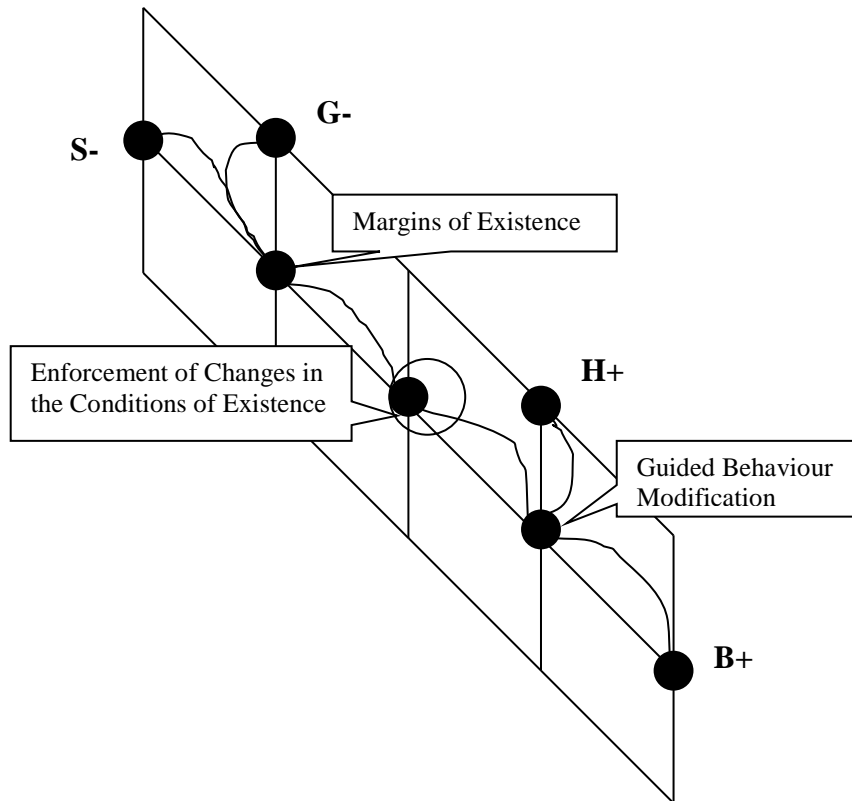
At the beginning, the experiments were designed with explicit reference to James J. Gibson's theory of ecological perception (B. Bierschenk, 1988a, b, c). Later on, the aims have been extended with the purpose of approaching interactive information processing within the framework of the theories of discontinuity (B. Bierschenk, 1990, 1992). As will be outlined, the stated hypothesis is a successful extension of the Gibsonian concepts of "shallow" and "deep". According to this aim, a fairly extensive statistical program has been carried out in order to achieve a longitudinal evaluation of these concepts (B. Bierschenk, 1997a). Factor-scores were used for input in a number of discrimination analyses. Their application in the set-up of two test-vectors allowed a location of the projected societies in the measurement space spanned by the two test vectors. These correlate mainly with the first discrimination function. This function accounts in all cases for between 60% and 80% of the variance in the two factorised scales.

Results

The experiments have all been designed and conducted on the basic assumption of classical experimentation and measurement. With those prerequisites the experimental treatment is under control, but the interaction effect has been left out. Studying discrete cross-sectional segments fails to find informational invariants of ecological significance. However, the given definition of "quality" explicitly recognises the fact that information pick up and quality are interacting and that all changes over time are to be regarded as process. Consequently, liberating the presented studies from the assumptions of classical test theory makes possible to take the specificational aspect of the time dimension into account. The effect of this measure is exemplified with reference to the 1981 study and illustrated in Figure 1 as well as in Figure 2.

Figure 1.

Holotop of Eigenvalue: Order of Model-Societies in 1981

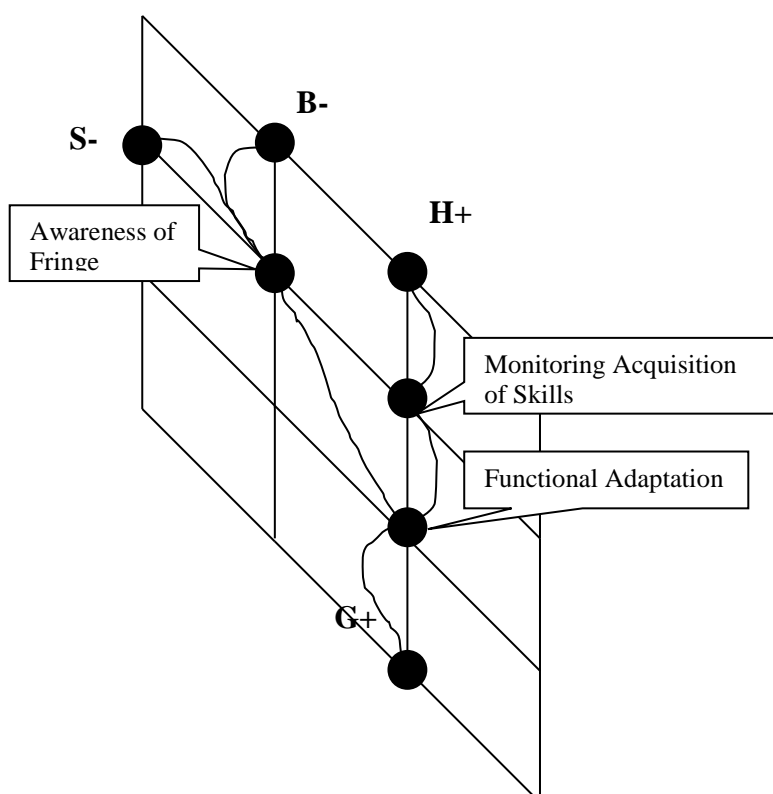


In contextualising their behaviour, the participants of 1981 have given attention to power planning in the form of social and environmental engineering. In an important way these participants have been constraining their accommodation in favour of the Behaviour and Humanist models. It follows that a power elite has been envisioned and its representatives have been associated with the function of channelling the planning and exercise of power. For the sake of “the commons” (Hardin, 1968), incongruent system behaviour need to be changed.

In general, the participants seem to accept that their status derives from the “idea” on the basis of which co-operation between individuals is established in the model societies. Establishing and enforcing interactive behaviour of co-operating individuals means that the power is generated by which co-operation is maintained and co-operative policy formulated.

Similarity in judgement between (G-) and (S-) is based on the joint influence of both energy consumption and environmental pollution. It follows that the boundary conditions of (S-) relate partly to scarcity of oil and natural gas supply, partly to the economic and industrial recession during the 1970s.

Certainty thus expressed is connected to special industrial conditions governing growth rates and the particular body of values associated with it. When the process of judgement is passing through this state of limitation the emergence of a singularity can be observed, which gives expression to an achieved synthesis. It refers to the unique rank order, which has been derived from the different sets of judgements, previously reported in Bierschenk (1997a). It is immediately apparent,



Economical and cultural conditions are subjected to severe restrictions. This means that “consensus” places constraints on one’s possibility to select alternative ways of making a living. In passing through the terminal state of (S-) a similar condition is established, because the consensus relation places a constricting boundary on the citizen’s possibility to increase his knowledge.

However, respecting one’s choice implies the acceptance of the utilitarian’s understanding of justice. It builds on the principle of distributive justice and concerns the delivery of those quantities that people have chosen to consume. It follows that “welfare” of others requires “contract morality”. A felt need of functional contextualisation consequently is the attractor produced by the process when it passes through the state of (G+). Furthermore, it is obviously agreed upon the fact that the citizen needs guidance in his acquisition of needed skills. It is conceived of as a means of becoming aware of natural boundary conditions. That the process is passing through (H+) is indicative of the understanding that nature must be approached in a mature and, consequently, co-operative manner.

Directional change (-, +) in degree of certainty concerning life quality has been studied on the basis of the five cross-sectional experiments that have been carried out during the last 15 years of experimentation. From a historical point of view, attention and cognitive processing of the single model-society is dependent on parallel causation in the ongoing excitations and transformations. In a process of adaptation, the single individual as citizen needs to meet the “demands” of the environment with a future-orientation. On the ecological (T^1)-scale the judgement of “demand” is folding. As mentioned, folding concerns five periods of time. Thus, from an ecological point of view, only five different T^1 -scales have to be considered. However, pairs of models are determining the bounded equilibration on the evolutionary (T^2)-scale (B. Bierschenk, 1997b). But in the determination of this scale, only direction is defined experimentally. As far as it concerns evolutionary causation, detection of the “character of evolution” is independent of the existence of a particular model type. To understand the significance of the present strategy, it may be noted that the “character of evolution” of a civilisation was not previously recognised experimentally or theoretically.

First (T^2)-scale

Step 1

Eco-Sociological Movement

Step 2

Concerted Action

Step 3

Constriction of Private Ventures
by External Boundary Conditions

Step 4

Repair of Previously Existing
Patterns of Subsidiary Incentives

Second (T^2)-scale

Step 1

Implementation of New Patterns

Step 2

Regulatory Control of Change

Step 3

Affirmative Action

Step 4

Persistence of Protection through
Safety Stipulations

The First Folded T^2 -scale.

The notion that the behaviour of the Swedish citizen is externally regulated is amply documented through the recovered scale. However, this result may not be received enthusiastically. The first step on the evolutionary scale concerns instrumental behaviour, which comprises all kinds of moves that the individual carries

out for the purpose of creating a change in his relation with the environment. The following two steps are addressing the modelling of behavioural change through the functional grouping. This measure is expected to have a modelling and thus guiding effect for appropriate performance. External boundary conditions are directing selective attention. Constriction of private ventures is made dependent on rule-governed behaviour. The final step involves the reinforcement of responses that are successively closer to the prescribed or desired behaviour. This step gives evidence to a systematic approach in the manipulation of socially acceptable behaviour.

The Second Folded T^2 -scale.

Folded is a trust in incentives. Implementation of new patterns of behaviour involves management that promotes individual adaptation. Attention is concentrated on its manifestation in the form of technological choices that can be made under given environmental conditions. Thus regulatory control of changes in behaviour concerns grading of incentives as a means of getting improved technologies accepted through changed consumer behaviour. Prompting in the form of affirmative actions is the mode of control that is compatible with the judged gains of technological development. In effect, prompting is a form of investment that through safety stipulations transforms the strategic outcome of adaptation into persistence of protection. Thus, constructive patterning is the result that is expected to strengthen industrial growth.

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